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races with a cage interposed therebetween, wherein an oil film of lubricating oil of which a dynamic viscosity at 40°C is greater than 100 and not exceeding 150 mm²/s and which contains an extreme pressure agent and a corrosion preventing agent is formed on raceway surfaces of the inner and outer races, said cage and said rolling elements, and wherein a grease is enclosed.

REMARKS

Applicants respectfully request favorable reconsideration of this application, as amended.

As a preliminary matter, it is noted that a change of correspondence address was filed in the Office on January 23, 2002. The Examiner is respectfully requested to confirm that the change has been entered and, if it has not, to contact the undersigned by telephone.

In order to avoid further prolongation of the prosecution, and without acceding to the outstanding rejection on Shiraishi et al. under 35 U.S.C. § 103(a), Claim 1 has been amended to revise the recited dynamic viscosity range to greater than 100 and not exceeding 150 mm²/s.

Thus amended, Claim 1 recites a fretting resisting spindle support roller bearing of a low-torque spindle drive,

comprising a plurality of rolling elements held between inner and outer races with a cage interposed therebetween, wherein an oil film of lubricating oil of which a dynamic viscosity at 40°C is greater than 100 and not exceeding 150 mm²/s and which contains an extreme pressure agent and a corrosion preventing agent is formed on raceway surfaces of the inner and outer races, the cage and the rolling elements, and wherein a grease is enclosed.

As noted in the Amendment dated July 27, 2001, fretting corrosion is particularly problematical for grease-filled spindle support bearings, because the amount of grease enclosed is typically small. The invention as set forth in amended Claim 1 provides a highly effective solution to the problem of fretting corrosion in such spindle support bearings.

As to Shiraishi et al., not only does the reference fail to address the aforementioned problem regarding low-torque spindle drives, it also explicitly eschews the use of oils having a dynamic viscosity greater than 100 mm²/s at 40°C. See column 3, lines 8-14. That the present invention provides a spindle support roller bearing of a low-torque spindle drive, which can avoid the aforementioned problem of the prior art using an oil having characteristics that are explicitly

eschewed by Shiraishi, represents a significant, non-obvious, and therefore patentable contribution to the art.

Accordingly, Claim 1 distinguishes patentably from Shiraishi et al., and the rejection of Claim 1 should be withdrawn.

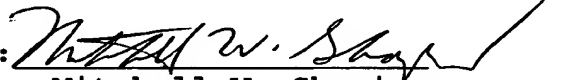
The rejections of the dependent claims are of course moot in view of the patentability of Claim 1 as discussed above.

Applicants respectfully request that this application now be passed to issue.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

Respectfully submitted,

MWS:lmb

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Marked-up Claim -- U.S. Appln. No. 09/199,447

1. (Thrice amended) A fretting resisting spindle support roller bearing of a low-torque spindle drive, comprising a plurality of rolling elements held between inner and outer races with a cage interposed therebetween, wherein an oil film of lubricating oil of which a dynamic viscosity at 40°C is [40 to] greater than 100 and not exceeding 150 mm²/s and which contains an extreme pressure agent and a corrosion preventing agent is formed on raceway surfaces of the inner and outer races, said cage and said rolling elements, and wherein a grease is enclosed.